DUTY STATEMENT

Classification: Research Scientist II (Epidemiology/Biostatistics)			**Position Number**: 811-130/135-5582-xxx		
Branch/Section: Community and Environmental Epidemiology Research Branch/Community Health and Env Impacts Section					
Location: Oakland or Sacramento			**Effective Date**:		
Management Designation	☐ Yes	☒ No	**Conflict of Interest**	☒ Yes	☐ No
Supervision Received:	☒ Yes	☐ No	**Supervision Exercised**:	☐ Yes	☒ No

Pursuant to Government Code Section 3100-3109, all public employees are declared to be disaster service workers for the protection of the health and safety and preservation of the lives and property of the people of the state from the effects of natural, man-made, or war-caused emergencies which result in conditions of disaster or extreme peril to life, property, and resources. This is of paramount state importance in protection of its citizens and resources.

POSITION SUMMARY

The Community Health and Environmental Impacts Section (CHEIS) is within the Community and Environmental Epidemiology Research Branch (CEERB) of the Office of Environmental Health Hazard Assessment (OEHHA). It provides technical support for the analysis of benefits and impacts in communities from greenhouse gas limits adopted by the California Air Resources Board (CARB), the identification and characterization of chemical hazards and risks from biogas and biogas combustion products, support for CARB's community air protection program (AB 617; C Garcia, Chapter 136, Statutes of 2017), and certain emergency response functions. The section also provides technical assistance to other programs in OEHHA, the California Environmental Protection Agency (CalEPA), and other California government entities.

Under general supervision of the Senior Toxicologist, Chief, CHEIS, the Research Scientist II (Epidemiology/Biostatistics) supports OEHHA's work in collaboration with CARB to identify hazards and characterize potential risks in California communities from emissions from stationary sources and transportation sources emitting fine particulate pollution as outlined in Assembly Bill 617 (AB 617). The Research Scientist II (Epidemiology/Biostatistics) will assess exposure and develop analyses of epidemiological data for key air pollutants which are likely targets of emissions reductions, and model health benefits of emissions reductions. The Research Scientist II (Epidemiology/Biostatistics) performs the following duties and other related work:

ESSENTIAL FUNCTIONS

25% **Evaluate potential community exposure to fine particulate pollution**

Evaluate and characterize potential exposure to air pollutants to AB617 communities to determine the potential human health impacts and to prioritize potential emission reduction strategies. This may include assessing exposure to pollutants by modeling emissions from stationary, area, and mobile sources. Evaluate air monitoring and modeling data to establish its adequacy for characterizing potential exposures from PM2.5 and other toxic air contaminants (TACs). Conduct statistical analyses of exposure data that form the basis of recommendations for appropriate exposure metrics.

25% **Assess potential health impacts of air pollutants**

Conduct statistical analysis using epidemiologic methods of the relevant data and summarize results for impacted communities and other California government agencies. Evaluate health data from these studies for scientific rigor and thoroughness. Use univariate, bivariate, and multivariate analyses to identify confounding variables, Cox proportional hazards modeling, and other statistical techniques. Characterize potential health risks that may be associated with pollutant exposures using chemical-specific health guidance values.

20% **Engage with AB 617 stakeholders through cross-agency and public meetings**

Consult with key contacts in air districts hosting community air monitoring and emission reduction programs under AB 617 in order to gain a fuller understanding of potential sources of pollution in affected communities and to provide a coordinated response to community concerns. Provide advice on behalf of the Office in ongoing AB 617 coordination meetings with other agencies, such as CARB. Attend meetings of AB 617 Steering Committees and related public meetings to engage with community stakeholders.

15% **Support development of provisional health guidance values**

For chemicals of concern, support the development of provisional chemical-specific advisory levels in order to gain a better understanding of health risk in AB 617 communities. Work with Staff Toxicologists to prioritize pollutants for development of new advisory levels for the general population. Evaluate short- and long -term epidemiological studies in support of provisional values.

10% **Prepare written analyses of health risks posed by chemical exposures in AB 617 communities**

Draft written reports describing scientific analysis including exposure assessments, epidemiological analyses, and risk assessments in collaboration with multi-disciplinary team of experts within OEHHA. Make presentations on program activities and findings to executive staff of OEHHA, CARB, CalEPA, its other boards and departments, and external stakeholders.

MARGINAL FUNCTIONS

5% Attend continuing education courses to maintain and further develop technical skills and expertise. Write and provide expert input for articles for publication in scientific journals. Co-organize technical workshops of interest to the program. Attend scientific meetings and conferences at the local and national level to stay abreast of scientific developments and share data.

REQUIRED QUALIFICATIONS

- Knowledge of and/or experience in biostatistical methods, epidemiological investigations, including study design, statistical analyses of data, and interpretation of results.
- Knowledge of and/or experience in conducting and reviewing exposure assessment studies with an emphasis on public health and environmental epidemiology.
- Knowledge of and/or experience in preparing written technical reports on scientific or regulatory topics.

DESIRED QUALIFICATIONS

- Knowledge of and/or experience related to environmental justice, community engagement and/or risk communication with members of the public.
- Knowledge of the analytical methods for measurement, monitoring, modeling of air emissions, and programming language (such as R).
- Knowledge of statistical and dose-response modeling software.
- Knowledge of the general principles of toxicology, with an emphasis in the area of risk assessment.
- Ability to function effectively and work cooperatively in a team.
- Ability to communicate complex technical matters effectively in person and in writing.

WORKING CONDITIONS

Located in high-rise office buildings in downtown Oakland and Sacramento. Various time-critical assignments are part of the workload. Prolonged sitting while reviewing scientific articles, reports and generating scientific documents and reports is required. Repetitive motion in using office equipment occurs. Offsite meetings and teleconferences sometimes take place. May be required to travel to other locations for business-related needs as necessary.

(Attach additional sheet if necessary)

I have read and understood the duties and essential functions of the position and can perform these duties with or without reasonable accommodation: **Employee Signature:**	**Date**:
I certify that the above accurately represent the duties of the position: **Supervisor Signature:**	**Date**:
PERSONNEL USE ONLY: This personnel action has been reviewed and approved by:	
Personnel Analyst Signature:	**Date:**